

still needs to be investigated before wide scale spraying is employed near their winter aggregation site.

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Scientific Note

NEW DISTRIBUTIONAL RECORDS FOR SOME CANDIDATE SPECIES OF *LYTTA* IN CALIFORNIA (COLEOPTERA: MELOIDAE)

Five Californian species of *Lytta* blister beetles (Coleoptera: Meloidae) are candidates for listing as endangered (i.e., a species that is likely to become extinct) by the U.S. Fish and Wildlife Service. These species [*L. hoppingi* Wellman, *L. insperata* (Horn), *L. moesta* (Horn), *L. molesta* (Horn), and *L. morrisoni* (Horn)] have not been listed due to a lack of biological information. Developments in California's central valley and surrounding foothills continue to impact them and their habitat because of three factors: our knowledge of their biology is limited, a lack of adequate survey methods, and the beetles not being fully protected by the Endangered Species Act (1973).

Recently, specimens of four of these candidate species were found in the R. S. Wagner Collection at the Tulare County Agricultural Commissioner's/Sealer's Office, Visalia, California. The specimens represent new distributional records for three species, having been collected in the 1930s but overlooked by researchers. For two of these species, an additional, more recent, distributional record is reported. We present this information (see Records section) to improve and update the distributional data on *Lytta*; to aid federal, state, and county regulatory agencies in their development, management, and protection efforts; and to encourage researchers to utilize the Wagner Collection and to study the endangered invertebrate fauna. Distributional information on *Lytta* has been summarized (Selander, R. B. 1960. Illinois Biol. Monographs, 28) and recently updated (California Department of Fish and Game. 1991. Natural Diversity Data Base, computer data base of sensitive species. Sacramento, California).

Biological information for the five candidate species of *Lytta* is almost non-existent. *Lytta molesta* has been collected on *Lupinus* (Leguminosae) feeding on

its flowers and seed pods (personal observations) and on *Erodium cicutarium* (L.) (Geraniaceae) (Selander 1960). Like most meloid beetles, *Lytta* parasitize the nests of wild bees, feeding on provisions or immature stages of the bees (Selander 1960). Bee genera that are parasitized by various other *Lytta* species include: *Anthophora* Latreille, *Diadasia* Patton, *Emphoropsis* Ashmead, *Ptilothrix* Smith (all Hymenoptera: Anthophoridae), *Andrena* subgenus *Onagrandrena* Linsley & MacSwain (Hymenoptera: Andrenidae) and *Colletes* Latreille (Hymenoptera: Colletidae) (Hurd, P. D. Jr. 1979. *In* Krombein et al. (eds.). *Cat. of Hymenoptera in America north of Mexico*. Vol. II, Smith. Instit. Press, Wash., D.C., pp. 1199–2209; Selander 1960).

The fourth candidate species in the Wagner Collection, *L. molesta*, is represented by three females and five males from a location previously reported by Selander (1960) as Lanes Bridge, Fresno Co., California. These specimens, though not providing new distributional information, have taxonomic value and demonstrate the merit of the Wagner Collection.

Because the candidate *Lytta* are very similar to each other, similar to other *Lytta* species, and more than one species may occur at a site, we urge researchers to collect voucher specimens and have them identified by a taxonomist to validate records. We hope that this information encourages researchers or agencies (state, federal, or private) to study or provide the funding necessary to determine the biological status of these species.

Records.—*Lytta hoppingi* Wellman. New records: CALIFORNIA. *KERN Co.*: Taft, 29 Apr 1978, W. H. Tyson (California Department of Fish and Game. 1991) [species determined by J. D. Pinto]. *TULARE Co.*: Ducor, 25 Mar 1934, 8 males and 8 females. Historical distribution: CALIFORNIA. *FRESNO Co.*: Coalinga; *TULARE Co.*: Visalia; Delano.

Lytta moesta (Horn).—New records: CALIFORNIA. *KERN Co.*: Arvin, 29 Mar 1931, 2 females. *TULARE Co.*: Springville, 28 May 1933, 1 female; 23 Jun 1936, 1 pair (in copulation). Historical distribution: CALIFORNIA. *FRESNO Co.*: Friant. *KERN Co.*: Edison. *MADERA Co.*: Kismet. *SANTA CRUZ Co.*: Santa Cruz. *STANISLAUS Co.*: Manteca; Modesto; Ripon; Westly. *TULARE Co.*: exact location unknown (county label only); Kaweah; Potwisha, Sequoia National Park.

Lytta morrisoni (Horn).—New records: CALIFORNIA. *FRESNO Co.*: Panoche Road 13.1 km (8.2 miles) W of Interstate 5, 21 May 1978, F. G. Andrews (California Department of Fish and Game. 1991) [species determined by J. D. Pinto]. *TULARE Co.*: Plano, 1 May 1939, 1 male and 1 female. Historical distribution: CALIFORNIA. *FRESNO Co.*: Coalinga. *KERN Co.*: exact location unknown (county label only); Edison. *TULARE Co.*: Kaweah; Tipton; White River (south of). One data locale lists only "southern California."

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